

## Studies in Australian and Oriental Trypaneidae. Part I. New Genera of Dacinae.

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In the subfamily *Dacinae* considerable confusion exists with regard to the limits of the genera. Some workers evade the issue by recognising only one genus, *Dacus* F., with a number of poorly-defined sub-genera, a procedure which only adds to the confusion, and makes many problems for the economic entomologists working on the group. The *Dacinae* contains so many species, is so widely distributed, and is so important, that it is necessary to divide it into clearly defined genera.

A number of authors have erected genera based on quite good morphological characters, but with the exception of Shiraki (1933), have not used such characters consistently. I refer to the chaetotaxy of the thorax, the ciliation on the posterior lateral margin of the third abdominal tergite of the male, the presence of a supernumerary lobe in the wing of certain males, the completeness of the thoracic suture, the length of the antennae compared with that of the face, and the length of the basal segment of the ovipositor compared with the length of the abdomen. African workers use two other characters—the fusion of the abdominal tergites, and the presence of a median abdominal carina, characters which appear to be confined to African species.

These are all good morphological characters, and are used extensively to separate genera in other sub-families of the Trypaneidae, and in other families of the Diptera. If used consistently throughout the *Dacinae*, a number of new genera will be required, and the classification might be criticised on the ground that it is too artificial. Such a criticism might, to a certain extent, be sound; but surely the advantages of having a definite straightforward classification are preferable to the doubt and complexity which have existed for a number of years.

At present I am working on collections of Trypaneidae from the Federated Malay States Museum, Kuala Lumpur; the Australian Museum, Sydney; C. S. I. R., Canberra; McLeay Museum, Sydney; Queensland Museum, Brisbane; Department of Agriculture, Brisbane; University of Queensland, Brisbane; collections which include practically all the more important Oriental and Australian genera and species, many of which are undescribed. Unless I follow Shiraki (1933), and use consistently the characters mentioned above, it is very difficult to classify the material in these collections.

This paper is an attempt to do so for the Oriental and Australian species of *Dacinae*. Six new genera and one new species are described, and comments made on the other genera. Provided the scheme I have put forward is generally adopted, two new African genera will be necessary—one for *lotus*. Bez. and its allies, and another for *mesomelas*. Bez. (*aethiopicus* Mro.). I have not included *Toxotrypana*, an American genus, because it is so distinct that it will fit into any scheme.

I do not regard *Marquesadacus* Mall, as a valid genus; it is only distinguished from *Strumeta* by the number of lower orbital bristles, a character which is very variable in the *Dacinae*, even in a particular species.

In my comments on the genera I shall include a list of species which, according to my card index, belong to the particular genus. This list is by no means complete, and only represents species which I have been able to place generically either by actual examination or by a study of the original, and subsequent descriptions. Naturally it is impossible to place many species owing to lack of material, inadequate description, and, in some cases, the fact that the male has never been recorded.

#### Genus DACUS Fab. 1805.

Synonym: *Tridacus* Bez. 1915.

Genotype: *Dacus armatus* Fab.

The genus *Dacus* was erected by Fabricius (1805) for the species *armatus*, *umbrosus*, *ferrugineus*, and *caudatus*. He did not designate a type, but *armatus* has page priority, and I strongly agree with Speiser (1924), Hendel (1927), and Collart (1935) who have accepted *armatus* as the type. Through the kindness of Dr. C. H. Curran, of the American Museum of Natural History, I have been able to examine specimens of *armatus*. Its generic characters are as follows:—2sc., 1 a.sa., no pr.sc. bristles, 3rd abdominal tergite of male with post-lateral cilia, basal segment of the ovipositor shorter than the abdomen, abdomen without median carina, abdominal tergites fused, no supernumerary lobe in wing of male, and antennae not noticeably longer than face.

The genus appears to be confined to Africa, and according to my index the following species belong to it:—*armatus* Fab., *bequaerti* Coll., *bidens* Curr., *bivittatus* Big., *chrysomphalus* Bez., *d'emmerti* Bez., *disjunctus* Bez., *eburneus* Bez., *fumosus* Coll., *ghesquierei* Coll., *humeralis* Bez., *linearis* Coll., *lulongaensis* Coll., *pectoralis* Walk., *punctatifrons* Karsch, *purus* Curr., *sphaerostigma* Bez., *schoutedeni* Coll., *sphaeristicus* Speis., *telfaireae* Bez., *transitorius* Coll.

#### Genus LEPTOXYDA Macq. 1835.

Genotype: *Leptoxyda longistylus* Wied.

This genus was erected in 1835 by Macquart for *testacea*, a species which was later proved to be a synonym of *longistylus* Wied. The generic characters are: 2sc., no pr.sc., no a.sa., no supernumerary lobe in wing of male, 3rd abdominal tergite of male not ciliated, basal segment of ovipositor as long as abdomen. This last character distinguishes it from all other genera of the *Dacinae*. I have a specimen from North Borneo which has a similar long ovipositor, but I am not certain that it is not an abnormality, the ovipositor having been stretched when the insect was dying. According to Collart (1935) *aspilus* Bez. belongs to this genus.

#### Genus BACTROCERA Guerin-Meneville 1838.

Genotype: *B. longicornis* Guer.

The type of the genus is *longicornis* Guer., and it was described and figured by Macquart in 1835. Since then it has not been rediscovered; and, as the type is no longer available, it is almost impossible to place this genus. Some authors consider *longicornis* Guer. to be a synonym of *umbrosus* F., but the description of the former differs in several respects. The dark middle bands of the wings are confluent towards the hind border of the wing, and the scutellum is said to have a black spot above in the middle.



Bezzi (1913) decided to include in this genus all species with banded wings, but admitted in 1919 that with the discovery of species like *hamatus* Bez. and *trigonus* Bez., which are definitely not congeneric with *umbrosus* F., it was very doubtful whether such a character was of generic value. Most workers will agree that wing markings, because of variation, are very unsatisfactory generic characters, and should be avoided as much as possible. In the *Dacinae* species such as *cucurbitae* Coq., *synnephes* Hend., *pulcher* Tryon, *strigatus* F. A. Perk., *frauenfeldi* Sch., *hamatus* Bez., *umbrosus* F., *curvifer* Wlk., all have banded wings varying from a short incomplete band in *cucurbitae* Coq. to a complex pattern in *umbrosus* F. and *curvifer* Wlk. Moreover, the species mentioned belong to at least three, and possibly four, different genera.

The position of *Bactrocera longicornis* appears to me to be as follows. From the description given by Macquart (1835) it might be assumed that it probably belongs to the *Dacinae*. Until either the type is found, or the species rediscovered, *Bactrocera* must remain a doubtful genus with one doubtful species. The type locality is given as Sydney, N.S.W., but I have examined all the collections in Eastern Australia, and have yet to see a specimen which resembles the description and figures given by Macquart. Bezzi (1913) stated that *Strumeta umbrosus* F. (*conformis* Wlk.) was perhaps synonymous with *B. longicornis* Guer. Apart from the differences mentioned above, the fact that *umbrosus* F. has not yet been collected in Australia, indicates that it is very unlikely that such synonymy is correct. Personally I can find no justification for sinking *Strumeta* as a synonym of *Bactrocera*, and as I shall show later, I regard *Strumeta* as a valid genus with which *Chaetodacus* Bez. is synonymous.

Genus STRUMETA Walk. 1856.

Synonymus: *Dasyneura* Saunders 1841 (nec. Rondani 1840).

*Chaetodacus* Bezzi. 1913.

*Marquesadacus* Mall. 1932.

Genotype: *Dacus umbrosus* F.

Saunders (1841) erected the genus *Dasyneura* designating *zonatus* as the type. Walker (1856) described the genus *Strumeta* for *conformis* which was afterwards proved to be a synonym of *umbrosus* F. Bezzi (1913) made a new genus, *Chaetodacus*, for *ferrugineus* and its allies. All three species, *zonatus* Saund., *umbrosus* F., and *ferrugineus* F., have the same generic characters, namely, 2 *sc.*, 1 *a.sa.*, 2 *pr.sc.* bristles, 3rd abdominal tergite of the male ciliated, a supernumerary lobe present in the wing of the male, basal segment of the ovipositor shorter than the abdomen, abdominal tergites not fused, and antennae not definitely longer than the face.

*Dasyneura* was preoccupied by Rondani in the Asilidae, and consequently had to fall. In view of what I have said with regard to *Bactrocera*, I can see no sound reason why *Strumeta* should be regarded as a synonym of *Bactrocera*, and in my opinion *Strumeta* (type *umbrosus* F.) is a valid genus of which *Chaetodacus* Bez. is a synonym. If eventually *Strumeta umbrosus* F. is proved to be a synonym of *Bactrocera longicornis*, then both *Strumeta* and *Chaetodacus* will become synonyms of *Bactrocera*.

For *mesomelas* Bez. (*aethiopicus* Mro.) a new genus is necessary, for it cannot be included in *Strumeta* because the male has no cilia on the 3rd abdominal tergite, and no supernumerary lobe in the wing.

According to my index, the following are species of *Strumeta*:—*antennalis* Shir., *bancroftii* Try., *barringtoniae* Try., *biguttatus* Bez., *bryoniae* Try., *cilifer* Hend., *costalis* Shir., *cucurbitae* Coq., *diaphorus* Hend., *dorsalis* Hend., *ferrigineus* Fab., *hyalinus* Shir., *latifrons* Hend., *limbiferus* Bez., *McGregori* Bez., *musae* Try., *occipitalis* Bez., *okinawanus* Shr., *parvulus* Hend., *passiflorae* Frogg., *pedestris* Bez., *perfuscus* Aub., *sarcocephali* Try., *tryoni* Frogg., *umbrosus* Fab., *zonata* Saund.

The distribution of the genus is very wide, ranging from Egypt, through India and the East Indies to Formosa, Australia and the Islands of the Pacific. It has not yet been found in Central and South Africa.

GENUS *CALLANTRA* Walk. 1860.

Synonym: *Mellesis* Bezzi 1916.

Genotype: *Callantra smieroides* Walk.

Hendel (1927) has already pointed out that this genus is the same as *Mellesis* Bez. erected in 1916 for *crabroniformis* and other species. The chief distinguishing characters appear to be—antennae longer than face, 1st segment of antennae as long as 2nd, the petiolated, club-shaped, abdomen, and the large tubular ovipositor in the female, no *pr.sc.*, 2 *sc.*, *a.sa.* present or absent, no supernumerary lobe in the wing of the male.

I have only seen two species which appear to belong to this genus; one is *aequalis* Coq. which has no *a.sa.* bristle, and in which the 1st antennal segment is not quite as long as the 2nd; and the other, *lounsburyi* which also has no *a.sa.* bristle, but which has the 1st antennal segment quite as long as the 2nd. They are both wasp-like, and have club-shaped abdomens, and in other respects agree with the characters of the genus *Callantra*. They both have the 3rd abdominal tergite of the male ciliated, a character which, with the exception of *bioculata* Bez. in which it is not mentioned, is common to all the species of the genus, of which a description of the male is available.

Until I have had the opportunity of examining more of the Oriental species of the genus, it is my intention to regard it as a valid genus with the following generic characters:—2 *sc.*, 1 or no *a.sa.*, no *pr.sc.* bristles, 3rd abdominal tergite of the male ciliated, no supernumerary lobe in the wing of the male, antennae definitely longer than the face, and held away from it. I am not satisfied that the proportional length of the 1st and 2nd antennal segments is a good generic character.

At present I include in this genus the following species:—*aequalis* Coq., *apicalis* Shir., *bioculata* Bez., *brachycera* Bez., *crabroniformis* Bez., *destillatoria* Bez., *eumenoides* Bez., *icariiformis* End., *longicornis* Wied., *lounsburyi* Coq., *nummularia* Bez., *pedunculata* Bez., *polistiformis* Sen. White, *smieroides* Walk., *sphaeroidalis* Bez., *subsessilis* Bez., *unicolor* Hend.

GENUS *MONACROSTICHUS* Bezzi 1913.

Genotype: *Monacrostichus citricola* Bezz.

This peculiar genus was created by Bezzi (1913) for *citricola* Bezz. It is easily distinguished from all other *Dacinae* by the fact that the thoracic suture is complete, a most unusual feature in the Trypaneidae, and, in fact, in the Acalyptrata.



## Genus TETRADACUS Miyaki 1919.

Genotype: *Tetradacus tsuneonis* Miyaki.

This is another genus erected for a single peculiar species. The most important distinguishing feature of the genus is the presence of 2 *a.sa.*, and no *pr.sc.* bristles. The other generic characters have been very fully described by Shiraki (1933).

## Genus DACULUS Speis 1924.

Genotype: *Musca oleae* Gmel.

This appears to be a good genus, and it is surprising that more species with similar generic characters have not been found. The only species appears to be the type Hendel (1927) included in this genus *annulatus* Beck., which has been transferred to *Psilodacus* by Collart (1935), and *semisphaereus* Beck., of which only the female is known.

## Genus AFRODACUS Bezzi 1924.

Genotype: *Chaetodacus biguttulus* Bez.

Bezzi (1924) created this genus for *biguttulus* Bez., a South African species, which only differs from *Strumeta* in having no *a.sa.* bristles. He does not state whether the abdominal tergites are fused; but in his description he very briefly mentions the characters by which the genus can be distinguished from what he called *Chaetodacus*, so that I think it can be assumed that the tergites are not fused. The name of the genus is rather unfortunate, for *jarvisi* Tryon is congeneric with *biguttulus*; and I also have another undescribed species from New Guinea which also belongs to *Afrodacus*. I have not seen a specimen of *biguttulus*, but from the published descriptions there seems little doubt that it is a valid genus with a very peculiar distribution.

## Genus ZEUGODACUS Hendel 1927.

Genotype: *Dacus caudatus* F.

This is a good genus which is well represented in the Oriental region, one species at least, *synnephes* Hend., extending its range to Queensland. It is the largest of the five genera with four scutellar bristles. It is rather interesting that no species with four scutellar bristles have been found in Africa, all being confined to the Indian, Oriental, and Australian regions.

The genus has been well defined by Shiraki (1933). According to my index, the following species belong to this genus:—*ambiguus* Shir., *arisanicus* Shir., *caudatus* F., *dobaensis* Shir., *depressus* Shir., *duplicatus* Bez., *hageni* de Meij., *lipsanus* Hend., *maculipennis* Dol., *nigrifacies* Shir., *nubilus* Hend., *okunii* Shir., *quadrisetosus* Bez., *scutellaris* Bez., *scutellatus* Hend., *synnephes* Hend., *tibialis* Shir.

## Genus PARATRIDACUS Shiraki 1933.

Genotype: *Dacus yayeyamanus* Matsum.

When erected by Shiraki (1933) the only species was the type, but *garcinae* Bez., certainly belongs to this genus, and in the near future I feel sure that other Oriental species will be added. It is very close to *Zeugodacus*, from which it differs in having no supernumerary lobe in the wing of the male, and no cilia on the 3rd abdominal tergite of the male.

## Genus PARAZEUGODACUS Shiraki 1933.

Genotype: *Parazeugodacus matsumurai* Shir.

Another Oriental genus in which a number of previously described species will have to be included. For example, *bipustulata* Bez. belongs to this genus, and I expect to find others before I complete my work on the Oriental and Australian Dacinae. It is very close to *Zeugodacus*, from which it differs in having no supernumerary lobe in the wing of the male.

## Genus PSILODACUS Collart 1935.

Genotype: *Dacus annulatus* Beck.

A recently described genus, the species of which are confined to Africa. According to my index, the following species belong here:—*annulatus* Beck., *apoxanthus* Bez., *bigemmatum* Bez., *decolor* Bez., *inornatus* Bez., *marshalli* Bez., *maynei* Bez., *mochii* Bez., *purpurifrons* Bez., *rubicundus* Bez., *woodi* Bez.

## Genus LOPHODACUS Collart 1935.

Genotype: *Dacus hamatus* Bezzi.

Collart has recently created this genus for *hamatus* Bez., which has a peculiar medium longitudinal abdominal carina. Apparently it is the only species in the genus.

## Genus DIDACUS Collart 1935.

Genotype: *Dacus ciliatus* Loew.

Although I have not seen enough specimens to be sure about the generic value of the fusion of the abdominal tergites, this appears to be a valid genus with a large number of species all confined to Africa.

According to my index, it contains the following species:—*abbabae* Mro., *africanus* Adams, *attenuatus* Coll., *bistrigulatus* Bez., *blepharogaster* Bez., *chapini* Curr., *ciliatus* Loew., *duplex* Mro., *elutissimus* Bez., *erythraeus* Bez., *ficicola* Bez., *gypsoides* Mro., *immaculatus* Coq., *insistens* Curr., *langi* Curr., *marginalis* Bez., *mimeticus* Coll., *mulgens* Mro., *ostiofaciens* Mro., *plagiatus* Coll., *vertebratus* Bez.

## Genus AUSTRODACUS nov.

Genotype: *Dacus cucumis* French.

It is necessary to create a new genus for *cucumis* French, a peculiar species which is so different from other Dacinae that previous workers have had great difficulty in placing it. Usually it has been left as *Dacus cucumis*, in spite of the fact that it is in no way related to *Dacus armatus* and its allies. This new genus may be defined as follows:—*Dacinae* with 4 *sc.*, no *a.sa.*, no *pr.sc.*, and no *hm.* bristles, no supernumerary lobe in the wing of the male, no post lateral cilia on the 3rd abdominal tergite of the male, antennae held close to and not longer than the face, basal segment of the ovipositor not as long as abdomen. It is very easily distinguished from all other genera with four scutellar bristles, by the absence of both the *a.sa.* and *pr.sc.* bristles.

## Genus NOTODACUS nov.

Genotype: *Dacus xanthodes* Brown.

I am compelled to erect this genus for *xanthodes* Brown, a species which differs from all other Australian and Oriental Dacinae in having



a strong humeral bristle (I consider that *Matsumurania* belongs to the subfamily *Adraminae*), and from most in having no definite supernumerary lobe in the wing of the male.

The genus can be defined as follows:—*Dacinae* with 2 *sc.*, 1 *a.sa.*, 2 *pr.sc.*, and 1 *hm.* bristles, 3rd abdominal tergite of the male with post lateral cilia, no definite supernumerary lobe in the wing of the male, antennae not definitely longer than the face, basal segment of the ovipositor shorter than the abdomen, abdominal tergites not fused. The characteristic form of the scutellum might be included in the list of generic characters, but at present I prefer to regard it as a specific character. *Notodacus xanthodes* is confined to a number of the Pacific Islands.

Genus NESODACUS nov.

Genotype: *Chaetodacus atrichus* Bez.

It is necessary to provide a new genus for *atrichus* Bez. and *ablepharus* Bez. and their varieties. These species agree with some of the African genera in having no *pr.sc.* bristles, but differ in other respects.

It may be defined as follows:—*Dacinae* with 2 *sc.*, 1 *a.sa.*, no *pr.sc.*, and no *hm.* bristles, a supernumerary lobe present in the wing of the male, no post lateral cilia on the 3rd abdominal tergite of the male, basal segment of the ovipositor not as long as the abdomen.

The two species, each with a variety, are confined to the Philippine Islands.

Genus MELANODACUS nov.

Genotype: *Dacus niger* Tryon.

I am erecting this genus for *niger* Tryon, a small black species which does not fit into any of the known genera of the *Dacinae* with four scutellar bristles. Some of the Oriental species which I am studying at the present time will probably fit into this genus. It can be defined as follows:—*Dacinae* with 4 *sc.*, 1 *a.sa.*, 2 *pr.sc.*, and no *hm.* bristles, no post lateral cilia on the 3rd abdominal tergite of the male, basal segment of the ovipositor shorter than the abdomen, antennae shorter than face, a supernumerary lobe present in the wing of the male, abdominal tergites not fused.

It is confined to Eastern Australia, and is close to *Zeugodacus*, from which it differs in having no abdominal cilia on the 3rd tergite of the male.

Genus ASIADACUS nov.

Genotype: *Chaetodacus bakeri* Bez.

This genus includes at least two species—*bakeri* Bez. from Philippine Islands and *diversa* Coq. from India and Ceylon. It differs from other genera with two scutellar bristles, in having a supernumerary lobe present in the wing of the male, but no ciliation on the 3rd abdominal tergite.

The genus is defined as follows:—*Dacinae* with 2 *sc.*, 1 *a.sa.*, 2 *pr.sc.*, and no *hm.* bristles, no cilia on the 3rd abdominal tergite of the male, a supernumerary lobe present in the wing of the male, basal segment of ovipositor shorter than abdomen.

## Genus NEODACUS nov.

Genotype: *Neodacus newmani* n. sp.

In the collection of Trypaneidae belonging to the Council for Scientific and Industrial Research is a small series of an undescribed species of *Dacinae* from West Australia. It is the first member of the sub-family that I have seen from that State, and it differs in many ways from the *Dacinae* found in the Eastern States. I am compelled to make a new genus, for it does not fit into any of the other genera which I have listed above. In many respects it looks more like an African than an Australian species, and I shall not be surprised if later on some African species are found to be congeneric with it.

The genus can be defined as follows:—*Dacinae* with 2 *sc.*, 1 *a.sa.*, no *pr.sc.*, and no *hm.* bristles, 3rd tergite of male ciliated, a supernumerary lobe present in the wing of the male, antennae not longer than the face, basal segment of the ovipositor shorter than the abdomen, and thoracic suture incomplete. This genus is very close to *Dacus*, from which it can be distinguished by the presence of a supernumerary lobe in the wing of the male.

***Neodacus newmani* n. sp.**

Male and female.—Length of body, 6.5–7.0 mm.; of wing, 4.6 mm. *Head.*—General colour brownish-yellow. Frons nearly as wide as long, the proportions when measured from, but not including, the lunule to the median ocellus being 18:16; with no black spots; ocellar triangle black; vertical calli, and lunule brown. Antennae not quite reaching the lower lateral angles of the face; 3rd segment nearly three times as long as the 2nd; 2nd segment bearing a short black dorsal bristle; dorsal edge of 3rd segment dark brown near the tip. Antennal grooves slightly darker yellow, with a short dark-brown fleck on either side of the facial plate just above the epistoma; normal facial spots absent. Genal spot present. Occiput brownish-yellow with a bright post orbital band extending as far as the genal bristle. Chaetotaxy *vt.* 2, *pv.* present, *s.* or 1, *i.* or 3 (middle pair weaker than the others), genal bristle; all black; occipital row vestigial.

*Thorax.*—General colour rich reddish-brown, punctulate, with short pale pubescence, with no black markings, but a faint mottling of dark brown at the sides of the mesonotum, and a very thin faint dark-brown median streak, which starts to expand about the level of the *a.sa.* into a triangular area, which terminates at the scutellum. With the following yellow markings—humeral calli; on each side, a triangular-shaped mesopleural stripe, the anterior border forming an obtuse angle, and cutting the mesopleural suture where it meets the sternopleural suture, the posterior border practically straight, and representing the longest side of the triangle, the upper edge coinciding with the end of the thoracic suture, and the lower apex being the extension on to the sternopleuron; a very short, post-sutural, median elliptical spot; practically the whole of the upper, and the anterior four-fifths of the lower hypopleural calli; (a peculiar feature is the absence of the post-sutural lateral stripes). Scutellum yellow with a narrow slightly curved dorsal basal band. Mesophragma and post-scutellum with a thin median longitudinal black streak. Chaetotaxy *scp.* 4, *n.pl.* 2, *a.sa.* 1, *p.sa.* 2, *mpl.* 1, *pt.* 1, *set.* 2 (apical) all black.



*Legs.*—The same colour as the rest of the thorax, except the first segments of the tarsi, which are paler.

*Wings.*—Hyaline with a dark costal band which terminates just beyond the end of R4 + 5; it includes the 1st C., the first quarter of 2nd C., all of Sc., all of R1, the distal margin of R3, and a small rounded extension in the upper distal corner of R5; most of 2nd C. is practically hyaline; and an anal streak which, in the male, extends across vein CuI + 1A in the usual way. Vein R4 + 5 slightly wavy beyond the R-M cv. The proportions of vein M1 + 2 in the 1st M2 before and after the R-M cv. 38:15. The anal extension of Cu. distinctly lanceolate, i.e., narrowed, then swelling out, and finally tapering to a point, definitely not parallel sided; the proportion of the extension to the rest of vein CuI + 1A being 15:12 in the female and 19:10 in the male. A definite, but not pronounced, supernumerary lobe is present in the wing of the male.

*Abdomen.*—General colour a uniform rich reddish-brown, slightly darker at the sides, and covered with pale pubescence; a sub-circular depression on either side of the 5th tergite which is of the same colour as the rest of the abdomen, but is noticeable because of an apparent difference in the texture of the exocuticula. Ovipositor very flat, much darker in colour than the abdomen, nearly black; basal segment slightly longer than the 5th tergite, very broad at the base and blunt at the apex. Sternites slightly darker in colour than the tergites. Male with a row of post-lateral cilia on the 3rd abdominal tergite.

Described from 2 males and 5 females labelled "Bred from native fruit, Carnarvon, W.A., 1918, Newman"; and one female, "Carnarvon, W.A., Sep., 1929, I. M. Mackerras."

This species differs from all other Australian *Dacinae* with two scutellar bristles, in the absence of the post-sutural lateral yellow stripes; and from most by the absence of *pr.sc.* bristles. I have called it after Mr. L. J. Newman, the Government Entomologist of West Australia, whose work on the control of fruit flies in his State is well known. He was the first to collect specimens of this species.

#### KEY TO GENERA OF THE DACINAE.

- |   |                            |
|---|----------------------------|
| 1. Abdomen club-shaped, narrowed or stalked at base     | 2.                         |
| Abdomen ovate, not narrowed or stalked at base ..       | 3.                         |
| 2. Ovipositor longer than abdomen, bent, cylindrical .. | <i>Toxotrypana</i> Gerat.  |
| Ovipositor shorter than abdomen, straight .. ..         | <i>Callantra</i> Walk.     |
| 3. One pair of <i>sc.</i> bristles .. .. .              | 4.                         |
| Two pairs of <i>sc.</i> bristles .. .. .                | 18.                        |
| 4. Thoracic suture complete .. .. .                     | <i>Monacrostichus</i> Bez. |
| Thoracic suture incomplete .. .. .                      | 5.                         |
| 5. Basal segment of ovipositor shorter than the abdomen | 6.                         |
| Basal segment of ovipositor as long as the abdomen      | <i>Leptoxyda</i> Macq.     |
| 6. With a median abdominal carina .. .. .               | <i>Lophodacus</i> Coll.    |
| Without a median abdominal carina .. .. .               | 7.                         |
| 7. No <i>pr. sc.</i> bristles .. .. .                   | 8.                         |
| One pair of <i>pr. sc.</i> bristles .. .. .             | 14.                        |
| 8. 2 <i>a. sa.</i> bristles .. .. .                     | <i>Tetradacus</i> Miyaki   |
| 1 <i>a. sa.</i> bristle .. .. .                         | 9.                         |
| No <i>a. sa.</i> bristle .. .. .                        | 11.                        |
| 9. 3rd abdominal tergite of male ciliated .. .. .       | 10.                        |
| 3rd abdominal tergite of male not ciliated .. .. .      | 13.                        |

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|--|-------|--|
| 10. Supernumerary lobe present in wing of male | ..    | <i>Neodacus</i> n.g.   |
| No supernumerary lobe present in wing of male  | ..    | <i>Dacus</i> F.  |
| 11. 3rd abdominal tergite of male ciliated     | .. .. | 12.  |
| 3rd abdominal tergite of male not ciliated     | .. .. | <i>Psilodacus</i> Coll.                                      |
| 12. Abdominal tergites fused                   | .. .. | <i>Didacus</i> Coll.   |
| Abdominal tergites not fused                   | .. .. | <i>Daculus</i> Speis.  |
| 13. Supernumerary lobe present in wing of male | ..    | <i>Nesodacus</i> n.g.  |
| No supernumerary lobe present in wing of male  | ..    | ( <i>lotus</i> Bez. and allies. A new genus required.)       |
| 14. 1. <i>a. sa.</i> bristle                   | .. .. | 15.  |
| No <i>a. sa.</i> bristles                      | .. .. | <i>Afrodacus</i> Bez.  |
| 15. 3rd abdominal tergite of male ciliated     | .. .. | 16.  |
| 3rd abdominal tergite of male not ciliated     | .. .. | <i>Asiadacus</i> n.g.  |
| 16. <i>Hm.</i> bristle present                 | .. .. | <i>Notodacus</i> n.g.  |
| <i>Hm.</i> bristle absent                      | .. .. | 17.  |
| 17. 3rd abdominal tergite of male ciliated     | .. .. | <i>Strumeta</i> Walk.  |
| 3rd abdominal tergite of male not ciliated     | .. .. | ( <i>mesomelas</i> Bez. and its allies. New genus required.) |
| 18. <i>Pr. sc.</i> bristles absent             | .. .. | <i>Austrodacus</i> n.g.                                      |
| <i>Pr. sc.</i> bristles present                | .. .. | 19.  |
| 19. 3rd abdominal tergite of male ciliated     | .. .. | 20.  |
| 3rd abdominal tergite of male not ciliated     | .. .. | 21.  |
| 20. Supernumerary lobe present in wing of male | ..    | <i>Zeugodacus</i> Hend.                                      |
| No supernumerary in wing of male               | .. .. | <i>Parazeugodacus</i> Shir.                                  |
| 21. Supernumerary lobe present in wing of male | ..    | <i>Melanodacus</i> n.g.                                      |
| No supernumerary lobe in wing of male          | .. .. | <i>Paratridacus</i> Shir.                                    |

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